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PRESERVATION OF NIAGARA FALLS.

MESSAGE

FROM THE

PRESIDENT OF THE UNITED STATES,

TRANSMITTING

THE REPORT OF THE AMERICAN MEMBERS OF THE INTERNATIONAL WATERWAYS COMMISSION, WITH LETTERS FROM THE SECRETARY OF STATE AND THE SECRETARY OF WAR INCLUDING MEMORANDA REGARDING THE PRESERVATION OF NIAGARA FALLS.

MARCH 27, 1906.—Read; referred to the Committee on Foreign Relations and ordered to be printed.

To the Senate and House of Representatives:

I submit to you herewith the report of the American members of the International Waterways Commission regarding the preservation of Niagara Falls. I also submit to you certain letters from the Secretary of State and the Secretary of War, including memoranda showing what has been attempted by the Department of State in the effort to secure the preservation of the falls by treaty.

I earnestly recommend that Congress enact into law the suggestions of the American members of the International Waterways Commission for the preservation of Niagara Falls, without waiting for the negotiation of a treaty. The law can be put in such form that it will lapse, say in three years, provided that during that time no international agreement has been reached. But in any event I hope that this Nation will make it evident that it is doing all in its power to preserve the great scenic wonder, the existence of which, unharmed, should be a matter of pride to every dweller on this continent.

THEODORE ROOSEVELT.

THE WHITE HOUSE, *March 27, 1906.*

DEPARTMENT OF STATE,
Washington, March 24, 1906.

DEAR MR. PRESIDENT: I return the letter of the Secretary of War with the report of the American members of the International Waterways Commission, regarding the preservation of Niagara Falls.

I think the legislation recommended by the Commission would be very useful.

Faithfully yours,

ELIHU ROOT.

WAR DEPARTMENT,
Washington, March 20, 1906.

MY DEAR MR. PRESIDENT: I herewith transmit, for submission by you to Congress, the report of the American members of the International Waterways Commission, made by them in accordance with the joint resolution approved March 15, 1906, and set out in their report. The recommendations of the Commission of legislation necessary and desirable to prevent the further depletion of water flowing over the Niagara Falls suggests the question whether such legislation is within the limitations of the legislative power of Congress, when applied to nonnavigable parts of a stream which is within the borders of a State and which is only partly navigable, if the use of the water to be inhibited does not affect navigation in the navigable part of the stream below. It would seem that the treaty power exercised by the President and Senate with respect to a stream which forms the boundary between this country and another, would be subject to less limitation in this regard than the legislative power of Congress, and therefore that it might be more advisable to effect the result sought by Congress through a treaty than through a statute.

Very respectfully,

WM. H. TAFT,
Secretary of War.

The PRESIDENT.

REPORT OF THE AMERICAN MEMBERS OF THE INTERNATIONAL WATERWAYS
COMMISSION REGARDING THE PRESERVATION OF NIAGARA FALLS.

INTERNATIONAL WATERWAYS COMMISSION,
OFFICE OF CHAIRMAN AMERICAN SECTION,
Washington, D. C., March 19, 1906.

SIR: 1. The American members of the International Waterways Commission have the honor to submit for transmittal to Congress this report, in compliance with the following joint resolution approved March 15, 1906:

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the members representing the United States upon the International Commission created by section four of the river and harbor act of June thirteenth, nineteen hundred and two, be requested to report to Congress at an early day what action is in their judgment necessary and desirable to prevent the further depletion of water flowing over Niagara Falls; and the said members are also requested and directed to exert, in conjunction with the members of said Commission representing the Dominion of Canada, if practicable, all possible efforts for the preservation of the said Niagara Falls in their natural condition.

2. The surplus waters of Lake Erie are discharged through the Niagara River into Lake Ontario, the mean level of Lake Erie being 572.86 feet and that of Lake Ontario being 246.61 feet above the sea. Leaving Lake Erie at Buffalo, the river is navigable and flows with a moderate slope to a short distance below Welland River, or Chipewaga Creek, about 19 miles, in which distance it has a fall of about 14

feet. The slope here is suddenly increased and the river ceases to be navigable. In the next half mile it has a fall of about 50 feet, forming the rapids above the falls. It is divided by Goat Island into two arms of unequal size, that on the Canadian side carrying about seven times the volume of water carried by that on the American side. At the foot of Goat Island the waters of both arms plunge over a vertical precipice, constituting Niagara Falls proper, that on the Canadian side being usually known as the Horseshoe Fall, and that on the American side as the American Fall. The height of the Horseshoe Fall is about 161 feet, and that of the American Fall 165 feet. Immediately below the falls the river is again navigable for a short distance, and then assumes the character of rapids as far as Lewiston, 7 miles from Lake Ontario, where it again becomes navigable and remains so until it enters the lake.

3. The volume of water flowing varies with the level of Lake Erie, which level is subject to variations of several feet, depending upon the rainfall, barometric pressure, and direction and force of the wind. At the mean level of the lake (elevation 572.86) the volume of discharge is 222,400 cubic feet per second. At a very low stage (elevation 571) the volume is 180,800. (See Annual Report, Chief of Engineers, U. S. Army, for 1900, p. 5361.) For short periods in midwinter, or with prolonged adverse winds, it has sometimes been even less.

4. It is the great volume of water in the falls themselves and in the rapids which makes the place unique. The tremendous display of power in wild turbulence fascinates the mind, and gives to the question of Niagara's preservation a national interest.

5. The local authorities on both sides of the river have recognized their responsibilities in this matter, but have taken somewhat different views as to what these responsibilities are. As long ago as 1883 the State of New York provided for the acquisition of the lands in that State adjoining the falls, with a view to creating a public park, and in 1885 it declared that these lands "shall forever be reserved by the State for the purpose of restoring the scenery of the Falls of Niagara to and preserving it in its natural condition; they shall forever be kept open and free of access to all mankind without fee, charge, or expense to any person for entering upon or passing to or over any part thereof." A commission of five was created to carry out the purposes of the act. The State reservation now includes 412 acres, part of which is under water, and an annual appropriation of some \$25,000 is made for its care and maintenance. The commission has no jurisdiction beyond the limits of the reservation, but it has never throughout its existence failed to protest and bring all its influence to bear against the depletion of the falls by the abstraction of water above and beyond the limits of the reservation. Nevertheless, the State legislature has granted numerous franchises for the diversion of water, as will appear further on.

6. Soon after the creation of the New York State reservation a public park was created on the Canadian side, called the Queen Victoria Niagara Falls Park, and was placed under the control of five commissioners. This park now extends practically the whole length of the Niagara River from Lake Erie to Lake Ontario, and embraces an area of about 734 acres. By an act of the Ontario legislature (62 Victoria, chap. 11), it was enacted that "The said commissioners, with the approval of the lieutenant-governor in council, may enter into an

agreement or agreements with any person or persons, company or companies, to take water from the Niagara River or from the Niagara or Welland rivers at certain points within or without the said park for the purpose of enabling such person or persons, company or companies, to generate within or without the park electricity, or pneumatic, hydraulic, or other power conducting or discharging said water through and across the said park or otherwise in such manner, for such rentals, and upon such terms and conditions as may be embodied in the agreement or agreements and as may appear to the lieutenant-governor in council to be in the public interest." In 1903 this act was amended by adding thereto the words "but no such agreement shall be operative unless and until ratified and confirmed by the legislative assembly" (3 Edward VII, chap. 7). Inasmuch as the park receives no aid from the legislature in the way of annual appropriations for its support, the commissioners have felt justified in using with some freedom the power thus granted in order to obtain a revenue for the general improvement and maintenance of the park. Prior to the amendment of 1903 they entered into four important agreements for the diversion of water, and caused an investigation to be made as to the availability of additional sites for power works. Two of these agreements were with a single corporation, which has thus far utilized only one.

7. The great water power available at Niagara Falls naturally attracted the attention of engineers at an early day, but it was not until it could be transmitted and used in the form of electricity that its development on a large scale became financially practicable. There are now five principal corporations engaged in furnishing or preparing to furnish electricity for commercial purposes, obtained from the water power, two of them located on the American and three on the Canadian side. A brief description of each is here given. A map showing their location is submitted herewith. It is to be remarked that none of the diversions have been sanctioned by the United States Government.

8. *1. Niagara Falls Hydraulic Power and Manufacturing Company.*—This company was organized in 1877 under the general laws of the State of New York. It purchased a canal which had been constructed before the civil war leading from Port Day, above the falls, through the city of Niagara Falls, to the edge of the cliff below the falls, where a grist mill had been established. (See map). The length of this canal was about 4,400 feet, its width 36 feet, and its depth 8 feet. A width of 70 feet and depth of 10 feet had been projected. In 1881 the company established its first station for supplying electricity for lighting, this being the first public distribution for commercial purposes of electricity derived from Niagara Falls. The increasing demand for electricity and the improved methods of transmitting it led to a steady development of the works of this company and to the establishment of others. In 1895 an important enlargement of the canal having been begun, the right of the company to take water from the river was questioned by the commissioners of the State reservation at Niagara. An opinion was obtained from the attorney-general of the State of New York (copy appended marked "A") in which it was held that the Niagara River is a navigable river in law, that the company had no right to increase the capacity of its canal, that it had no right to divert any water from the river, and that a diversion of water sufficient to diminish the flow over the falls was a nuisance and could be restrained.

The New York legislature thereupon passed an act (chap. 968, Laws of 1896), in which the right of the company "to take, draw, use, and lease and sell to others to use the waters of Niagara River for domestic, municipal, and sanitary purposes, and to develop power therefrom for its own use and to lease and sell to others to use for manufacturing, heating, lighting, and other business purposes, is hereby recognized, declared, and confirmed." No limit as to the time during which these rights were to exist was fixed, but the amount of water to be taken was limited to that which could be drawn by a canal 100 feet wide, with such depth and slope as would maintain at all times a depth of 14 feet. The amount of water thus described is not specific. It is computed to be about 9,500 cubic feet per second for the works now under construction, but it would be possible to construct works under different plans which would use a much greater quantity of water. The company is now using about 4,000 cubic feet per second. It is extending its works, and expects to develop about 134,000 horsepower, in addition to which its tenant companies will develop about 8,000 horsepower. It has paid nothing to the State for its privileges. A list of the more important industries which this company supplies with electricity is given in Appendix B. Its managers estimate that the power plant and the industries dependent upon it for power represent an investment of \$10,000,000.

9. II. *Niagara Falls Power Company.*—In 1886 the New York legislature granted a charter to a company called the "Niagara River Hydraulic Tunnel Power and Sewer Company of Niagara Falls," subsequently amended in 1886, 1889, 1891, 1892, and 1893. (See chapter 83, 1886; chapter 489, 1886; chapter 109, 1889; chapter 253, 1891; chapter 513, 1892; chapter 477, 1893.) In 1889 the name of the company was changed to "The Niagara Falls Power Company." It is authorized to take water sufficient to generate 200,000 horsepower, computed to be about 17,200 cubic feet per second. Its franchise is for fifty years from March 31, 1886. The location of its works is shown upon the map. Beginning about a mile above the falls a short intake canal is constructed nearly at right angles with the river shore. Upon each side of the canal deep pits are excavated in the rock, at the bottom of which are placed the turbines, and over which are placed the power houses. The water, after passing through the turbines, is carried off by a tunnel about 21 feet in diameter under the city of Niagara Falls to the lower river, a distance of about 7,000 feet. The company has in operation two power houses having a combined capacity of about 105,000 horsepower.

It is working the plant nearly to its full present capacity, using about 8,000 cubic feet per second, in addition to which one of its tenant companies is using about 600 cubic feet. It paid nothing to the State for its privileges, but is bound to furnish free of charge electricity for light and for power and also water for the use of the State in the State reservation at Niagara and the buildings thereon, when requested to do so by the commissioners of the State reservation. It distributes electric power over a wide area of territory and to a great variety of commercial interests in Niagara Falls, Tonawanda, Olcott, and Buffalo, in some cases over 35 miles distant. A list of the consumers dependent upon this company is given in Appendix C. The investment is stated by the managers to be over \$6,000,000 in the

power plant, and \$7,000,000 or \$8,000,000 in other industries established on its lands at Niagara Falls and dependent upon it.

10. *III. Canadian Niagara Power Company.*—This company is an allied company of the Niagara Falls Power Company just described. It was incorporated by an act of the legislature of the Province of Ontario in 1892, which also confirmed an agreement dated April 7, 1892, between the company and the commissioners for the Queen Victoria Niagara Falls Park. In 1899 an act was passed conferring upon those commissioners authority to modify this agreement and to make other agreements for the construction of power works, as specified above. The agreement was modified July 15, 1899, and June 19, 1901.

11. The company is authorized to construct certain works, which works will have a capacity of 110,000 horsepower, and by inference to take the quantity of water required for that purpose, although the agreement does not in terms limit the capacity of the works or the quantity of water. The amount required to supply the works which have been approved and are under construction is computed to be about 9,500 cubic feet per second. The location of the works is shown upon the map. They are of the same general type as those of its allied company on the American side. Water is taken from the river about a quarter of a mile above the falls through a short canal and fore bay and discharged through penstocks into turbines near the bottom of a deep wheel pit excavated in the solid rock, over which is placed the power house. After passing through the turbines, the water is carried off by a tunnel about 2,000 feet long, and discharged into the river below the falls. The works are not completed, and less than half of the generators have been installed, the quantity of water used thus far being about 2,600 cubic feet per second. They are operated in connection with those of the allied company on the American side. They represent an investment of several million dollars.

12. The company agrees to pay for its privileges an annual rental of \$15,000, for which it may generate 10,000 electrical horsepower or less; for all above 10,000 and under 20,000 horsepower it pays in addition to the above \$1 per annum for each horsepower; for all above 20,000 and under 30,000 it pays a further sum of 75 cents per annum for each horsepower; and for all above 30,000 it pays a still further sum of 50 cents per annum for each horsepower; that is to say, the annual rental for generating 30,000 horsepower will be \$32,500, and for generating 110,000 horsepower will be \$72,500.

13. The period for which the privileges are granted is fifty years from May 1, 1899, but the company is entitled, at its option, to three renewals of twenty years each, the rentals to be adjusted at the time of each renewal, if the lieutenant-governor in council so desires, and at the end of the third renewal the lieutenant-governor in council may require a still further renewal of twenty years; the entire period thus covered by the agreement being one hundred and thirty years.

14. *IV. Ontario Power Company.*—This company was incorporated by an act of the Dominion Parliament in 1887, and was empowered to take water from the Welland River, or Chippewa Creek, near its mouth at Chippewa—that is, indirectly from the Niagara River. On the 11th of April, 1900, it entered into an agreement with the park commissioners to construct works for that purpose, but before progressing far in the work of construction it changed its plans, and on the 28th of June, 1902, it made another agreement with the commis-

sioners, under which it is now working. It claims that the first agreement is still valid and may be utilized hereafter if the company so desires. Under the agreement of June 28, 1902, the company is authorized to construct works according to certain plans submitted, which works will have a capacity of 180,000 horsepower, and by inference to take the quantity of water required for that purpose, although the agreement does not in terms limit the capacity of the works or the quantity of water. The amount required to supply the works, which have been approved and are under construction, is computed to be about 12,000 cubic feet per second. The location of the works is shown upon the map. Water is taken from the river at Dufferin Island, about half a mile above the intake of the Canadian Niagara Power Company, or three-quarters of a mile above the falls, and after passing through an elaborate system of screens enters a gatehouse, and thence is transmitted through three underground conduits, each 18 feet in diameter, to a power house located near the foot of the cliff below the falls. The length of the pipe line to the nearest penstock is 6,180 feet, and to the most distant penstock about 1,000 feet more. The works, which represent an investment of several million dollars, are not completed, only about 2,000 cubic feet per second now being used.

15. The company agrees to pay for its privilege an annual rental of \$30,000, for which it may generate 20,000 electrical horsepower or less. For all above 20,000 and under 30,000 horsepower it pays, in addition to the above, \$1 per annum for each horsepower; for all above 30,000 and under 40,000 it pays a further sum of 75 cents per annum for each horsepower, and for all above 40,000 it pays a still further sum of 50 cents per annum for each horsepower; that is to say, the annual rental for generating 40,000 horsepower will be \$47,500, and for generating 180,000 horsepower will be \$117,500.

16. The period for which the privilege is granted is fifty years from April 1, 1900, but the company is entitled, at its option, to three renewals of twenty years each, and after the third renewal the lieutenant-governor in council may require a fourth renewal of twenty years, the rentals to be adjusted at each renewal, the entire period thus covered by the agreement being one hundred and thirty years.

17. *V. Electrical Development Company.*—On the 29th of January, 1903, the commissioners for the Queen Victoria Niagara Falls Park entered into an agreement with three citizens of Canada, subsequently transferred to "The Electrical Development Company of Ontario (Limited)" incorporated by act of the legislature of Ontario. (5 Edward VII. chap. 12.) Under this agreement authority was given to take from the Niagara River water sufficient to develop 125,000 electrical horsepower. The amount is computed to be 11,200 cubic feet per second. The location of the works is shown upon the map. Water is taken from the river about midway between the intakes of the Canadian Niagara Power Company and of the Ontario Power Company, or about half a mile above the falls. A gathering dam, about 750 feet long, extends out into the river obliquely upstream, designed to divert the required amount of water into the power house, which is located upon the original shore line. Under the power house is a wheel pit, excavated in the solid rock to a depth of 158 feet, at the bottom of which are placed the turbines. After passing through the turbines the water is conveyed by a tunnel to the base of the falls and discharged about midway between the Canadian and American

shores. The works are not completed, and no water is now being used. They represent an investment of several million dollars.

18. The company agrees to pay for its privileges an annual rental of \$15,000, for which sum it may generate 10,000 electrical horsepower or less; for all above 10,000 and less than 20,000 horsepower it pays, in addition to the above, \$1 per annum for each horsepower; for all above 20,000 and less than 30,000 it pays a further sum of 75 cents per annum for each horsepower; and for all above 30,000 it pays a still further sum of 50 cents per annum for each horsepower; that is, to say, the annual rental for generating 30,000 horsepower will be \$32,500, and for generating 125,000 horsepower will be \$80,000.

19. The period for which the privilege is granted is fifty years from February 1, 1903, but the same provisions are made for renewals as in the cases of the other companies, and the entire period covered by the agreement is thus one hundred and thirty years.

20. In the case of each of the Canadian companies the authorities reserve the right to require that one-half the power generated shall be supplied to places in Canada.

21. Water is diverted also by the Park Electric Railway, under authority of the commissioners, the quantity to be used under plans now in execution being estimated at 1,500 cubic feet per second, developing about 8,000 horsepower, while the actual present use is about 600 cubic feet per second.

22. In addition to the foregoing, six charters were granted by the New York legislature between the years 1886 and 1894 to corporations organized to take water from the Niagara River, but it is believed that all, with the possible exception of two, have expired by limitation. In one case, the Niagara, Lockport and Ontario Power Company, an act to renew passed the legislature in 1904, but was vetoed by Governor Odell in his message of May 14 of that year. The company, however, claims the rights granted under its original charter, and is constructing works for the distribution of electrical energy developed by other companies, but is not itself diverting water. Another corporation, the Niagara County Irrigation and Water Supply Company, has done some work, and claims that its charter has thus been preserved, but it has diverted no water. A list of these charters is given in Appendix D.

23. The Dominion of Canada has granted charters to two corporations in addition to those already mentioned organized to take water from the Niagara River for power purposes. It has chartered two other corporations, organized to take for power purposes water from Lake Erie which would naturally be tributary to the Niagara River. These companies have not finally developed their plans, and it is believed that their franchises are therefore not perfected, although all but one are still in force. In one case the charter has expired by limitation. The charters fix no limit to the amount of water which may be used. A charter was granted in 1889 by the province of Ontario to the Hamilton Cataract, Power, Light, and Traction Company. This company is using water from the Lake Erie level of the Welland Canal, which water would otherwise be tributary to the Niagara River. The volume now being used is estimated at about 1,800 cubic feet per second, and is to be increased. A list of these charters will be found in Appendix E.

24. The Chicago Drainage Canal, constructed under the authority of the State of Illinois, was designed to divert about 10,000 cubic feet per second of water which would naturally flow over Niagara Falls. It has not been fully completed, but it now has a capacity of about 5,000 cubic feet per second. The amount which it is actually diverting has thus far been limited by the Secretary of War to about 4,200 cubic feet per second. In addition to the foregoing, about 333 cubic feet per second of Lake Erie water is now taken for power purposes from the Erie Canal at Lockport.

25. Full and precise information concerning the plans and the legal rights of the companies which have not begun or completed their works has not been obtainable. In the cases of the corporations now furnishing or preparing to furnish electricity for commercial purposes, the franchises are vague as to the volume of water to be used, which is the feature of greatest interest here. We have computed the volumes from the available data, and have endeavored to make the figures conservative. It must be understood that these figures are fair approximations. In proceeding to an examination of the effect upon Niagara Falls of the works proposed, the subject is much simplified by considering only those companies which derive their water from the Niagara River itself, and that is the course here pursued. Any effects caused by these works will be exaggerated by the other works mentioned.

26. The total quantity of water to be taken from the river by works now authorized is:

	Cubic feet.
Niagara Falls Hydraulic Power and Manufacturing Company.....	9,500
Niagara Falls Power Company	17,200
Canadian Niagara Power Company	9,500
Ontario Power Company, not including Welland River Development.....	12,000
Electrical Development Company	11,200
Niagara Falls Park Railway Company	1,500
Total	60,900

Of this amount 26,700 cubic feet is to be taken on the American side and the remainder, 34,200 cubic feet, on the Canadian side. That is, 27 per cent of the average discharge and 33 per cent of the low-water discharge of the Niagara River will cease to pass over the falls when these works are completed and in full operation. The quantity to be diverted is more than double the quantity which now passes over the American Fall, which at the average stage is about 27,800 cubic feet. That this will in general have an injurious effect upon the falls seems self-evident. The volume of water to be diverted is about the equivalent of the entire discharge of Lake Superior over the Sault Ste. Marie. The amount thus far actually diverted is but 17,800 cubic feet per second, and has had an appreciable effect upon the falls. To foretell with accuracy the effects in detail of the full diversion authorized would require a more complete knowledge of the bed of the river than is now obtainable. The water taken on the Canadian side below the crest of the rapids will affect the Horseshoe Fall alone. If all that taken on the American side should affect the American Fall alone, it would practically leave it dry; but it seems probable that only a part of this diversion will be at the expense of the American Fall.

Exactly what portion that will be can not be stated with precision, but from a study of the channels and reefs, so far as they are known,

a reasonable estimate is that the water would come from the two arms in about the proportion of one-sixth from the American Fall and five-sixths from the Horseshoe Fall. Exactly what form the changes in the two cataracts will take, whether they will be made narrower, or be broken up into a greater number of streams, or simply be reduced in volume, retaining in general their present form, can not now be foretold, for the reason that there is no accurate knowledge of the form of and depth of water on the crests. If 60,900 cubic feet per second be diverted, the loss will be important, but if the diversion be limited to this amount, or reduced, as hereafter indicated, it may not prove disastrous. This can not be definitely determined until the works now under construction have been completed and put in operation. When that happens, if it be found that the falls have not suffered serious damage, as a scenic spectacle, it does not follow that additional water may be diverted with impunity. Additional diversion would be an experiment even more dangerous than that now being tried, and in our opinion should not be permitted.

27. In return for the impairment of the falls thus far authorized the State of New York will receive practically nothing for the 342,000 horsepower authorized on that side, and the Queen Victoria Niagara Falls Park will receive an annual rental of \$270,000, or an average of 65 cents per horsepower for the 415,000 horsepower authorized on the Canadian side. These figures do not include the 8,000 horsepower being developed by the electrical railway nor the power developed by the Hamilton Company with water from the Welland Canal.

28. If all the water and all the head from the top of the upper rapids to the foot of the falls could be utilized, there would result over 4,000,000 mechanical horsepower. Probably space could be found, if desired, for works which would utilize about half of this, or, say, 2,000,000 horsepower, or possibly more. As they could not utilize all the head, they would use much more than half the water. It will require time to create a market for all this power, but it is reasonably certain that it will in due season be found if the development of the power itself is to go on unchecked. The difference in cost in favor of falling water over any other method of developing power is so great that all other methods are sure to be abandoned where sufficient water power is available. The difference at Niagara Falls is probably not less than \$15 or \$20 per annum per horsepower. The cost of transmission to distant points increases with the distance, and finally becomes so great as to be unprofitable; but electrical engineers are engaged in improving the methods and reducing the cost. An average difference of cost for each horsepower can not now be given with any close degree of approximation, but the difference, whatever it is, is a perpetual annual saving, which, if capitalized, will show that the commercial value of the power at Niagara Falls is very great and is to be measured by the hundred millions of dollars.

29. Whether this commercial asset shall be utilized to such an extent as to seriously impair the majesty and scenic beauty of the falls depends upon the public will. In our opinion the commercial advantages of a large increase in development of power will not compensate for the great loss to the world of the inspiration, aesthetic education, and opportunity for recreation and elevating pleasure which the mighty cataract affords. The direct advantages to the public from revenue is nothing

on the New York side of the river, and comparatively slight on the Canadian side. There is of course an indirect advantage due to added taxable wealth and reduction in the cost of power, but these advantages are, in our opinion, slight in comparison with those which spring from the preservation of the beauty and majesty of the falls in their natural condition. Over 800,000 people visit the falls annually, deriving pleasure and inspiration from them. The nations of the world have always recognized the great value of parks and reservations, and throughout the civilized world they have preserved places of natural grandeur and beauty and furnished parks, artificially beautified, for rest, education, and the elevation of their people. An illustration may be given in the case of the city of New York, one of many hundreds. There the municipality has acquired, in Central Park, property which is estimated to be worth \$225,000,000, and has spent millions upon its improvement and ornamentation. The United States Government has reserved lands of striking picturesqueness, grandeur, and interest, regardless of their value. These illustrations would seem to prove conclusively that the people are not inclined to offset mere commercial values against the intangible but none the less great advantages found in the preservation of the great works of nature.

30. It is probably not expedient to attempt the recovery of the rights granted to companies which have taken full advantage of them. In the case of the Niagara Falls Power Company, on the American side, the franchise authorizes it to develop 200,000 horsepower. It has constructed works having about half that capacity, but has not begun the construction of the additional works, and we believe has no present intention of doing so. In the case of the Ontario Power Company, on the Canadian side, the construction of works under the agreement of April 11, 1900, has been indefinitely postponed. The authority for the additional works in both these cases could probably be withdrawn without inflicting an unreasonable hardship. All franchises of which advantage has not been taken should be extinguished.

31. The following is a summary of the foregoing statement of facts:

(a) The glory of Niagara Falls lies in the volume of its water rather than in its height, or in the surrounding scenery.

(b) Works are now authorized and partially completed at the falls which will divert from the Niagara River above the falls about 27 per cent of the average discharge, and about 33 per cent of the low-water discharge, which is more than double the quantity now flowing over the American Fall. In addition to this, water naturally tributary to the Niagara River is being diverted through the Chicago drainage canal, and for power in addition to navigation purposes through the Erie and the Welland canals.

(c) The effect of this withdrawal of water is to injure both the American and the Horseshoe falls in nearly equal proportions. While the injury will be perceptible, it may not be destructive or disastrous.

(d) Improvements in the transmission of electric power and increased demand will make a market for all the power which can be developed at Niagara Falls, and will cause a destruction of the falls as a scenic spectacle if the development be allowed to go on unchecked.

(e) Charters have been granted to corporations which propose to divert additional amounts in quantities not now limited.

(f) The sums of money invested, or being invested, in the works now in operation or under construction, and in the industries dependent upon

them, amount to many millions of dollars. It is probably not expedient to attempt the withdrawal of the rights thus utilized.

(g) The commercial value of the water power at Niagara Falls is very great, but if compared with values set aside by wealthy communities elsewhere for park purposes this value is not too great to be devoted to similar purposes. The place is visited annually by about 800,000 people.

32. If the falls are to be preserved it must be by mutual agreement between the two countries. As a step in that direction we recommend that legislation be enacted which shall contain the following provisions, viz:

(a) The Secretary of War to be authorized to grant permits for the diversion of 28,500 cubic feet per second, and no more, from the waters naturally tributary to Niagara Falls, distributed as follows:

	Cubic feet.
Niagara Falls Hydraulic Power and Manufacturing Company.....	9,500
Niagara Falls Power Company	8,600
Erie Canal or its tenants (in addition to lock service).....	400
Chicago drainage canal	10,000

(b) All other diversion of water which is naturally tributary to Niagara Falls to be prohibited, except such as may be required for domestic use or for the service of locks in navigation canals.

(c) Suitable penalties for violation of the law to be prescribed.

(d) The foregoing prohibition to remain in force two years, and then to become the permanent law of the land, if, in the meantime, the Canadian government shall have enacted legislation prohibiting the diversion of water which is naturally tributary to Niagara Falls, in excess of 36,000 cubic feet per second, not including the amounts required for domestic use or for the service of locks in navigation canals. It is assumed, however, that an understanding upon this subject would be reached by treaty.

33. The object of such legislation would be to put a stop to the further depletion of the falls, and at the same time inflict the least possible injury upon the important interests now dependent upon this water power. The amount to be diverted on the Canadian side has been fixed with a view to allowing to the companies on that side the amounts for which they now have works under construction, which are:

	Cubic feet.
Canadian Niagara Power Company	9,500
Ontario Power Company.....	12,000
Electrical Development Company	11,200
Niagara Falls Park Railway Company	1,500
Welland Canal or its tenants (in addition to lock service).....	1,800

34. One of the effects of such legislation would be to give to Canada the advantage of diverting 7,500 cubic feet per second more than is diverted in the United States. The advantage is more apparent than real, since the power generated on the Canadian side will to a large extent be transmitted to and used in the United States. In the negotiation of a treaty, however, the point should be considered.

35. The substance of this report was submitted to our Canadian colleagues before the passage of the joint resolution, with a view to uniting in a joint report under the general law providing for the Commission. There was a substantial agreement in the statement of facts, and such differences as developed with respect to the recommendations which ought to be made did not seem insuperable, but our colleagues desired

time for further consideration. We have no doubt of their sympathetic interest in carrying out that part of the instructions contained in the resolution which requires us "to exert in conjunction with the members of said Commission representing the Dominion of Canada, if practicable, all possible efforts for the preservation of Niagara Falls in their natural condition."

Very respectfully,

O. H. ERNST,
Colonel, Corps of Engineers, Chairman.
GEORGE CLINTON,
Member.

GEO. Y. WISNER,
Member, American Section.

The SECRETARY OF WAR,
Washington, D. C.

APPENDIX A.

STATE OF NEW YORK,
ATTORNEY-GENERAL'S OFFICE,
Albany, November 16, 1895.

DEAR SIR: Sometime ago the question of the right of the Niagara Falls Hydraulic Power and Manufacturing Company to enlarge the capacity of their canal, by which a portion of the water of the Niagara River is diverted for manufacturing purposes, was submitted to me for examination by you. The question is one involving great interests, not only to the corporation referred to, but to the State itself, and I have therefore considered it with a great deal of care before venturing to express an opinion.

The facts in the case may be briefly stated. The canal in question was originally constructed in the year 1859. Its dimensions were 70 feet wide by 14 feet deep. The inlet is at Port Day, about 1 mile above the falls, and it runs through a strip of land 100 feet wide to the mills on the bank of the river below the falls, where the waters, after supplying power to various industries, are discharged into the river.

About the year 1878 the title to the land in the 100-foot strip, as I am informed by Mr. Schoelkopf, of Niagara Falls, was acquired by the present owners, since which time the canal has been in active operation, and has supplied power to mills of a sufficient capacity to employ a large number of hands, residents of the city of Niagara Falls, and whose continued prosperity, to a very large degree, is dependent upon the operation of the mills in which they are employed. Sometime after the acquisition of title to the strip of land by the present owners they made application to the land commissioners of the State of New York for a grant of land under water adjoining the inlet to the canal.

In the papers submitted on that application it was stated to be the intention of the owners to increase the capacity of the canal, and thereby increase its production of horsepower. The grant was made by the commissioners with the condition that no structures were to be built upon the granted land without the consent of the Niagara Reservation Commission. Thereafter application was made to the reservation commission for leave to erect cribs on the land under water, the purpose of which was to prevent the flow of ice and other refuse into the canal, to the detriment of the interests of the Niagara Falls Hydraulic Power and Manufacturing Company.

The capacity of the canal at that time, if I am correctly informed, was 200,000 cubic feet per minute. No objection was made (at least publicly) to this diversion of the waters of the river at that time. Since then, however, various grants of privileges by the legislature of the State have been given to several corporations to divert the waters of the Niagara River for power purposes. In consequence of these grants apprehension has been created as to the probable effect upon the flow of water over the falls, and your commission, actuated by commendable zeal to protect the great natural beauty of the reservation, have determined that further encroachments upon the stream shall be prevented, if possible.

The law under which your board was created (chap. 336, Laws of 1883) states that the object of the creation of the commission was to preserve the scenery of the Falls of Niagara. It provides for the condemnation of the lands to be selected by the commission, and for the compensation to be paid to the owners of the property con-

demned. In carrying out the provisions of the law several million dollars have been expended by the State of New York, which will be converted into a mere waste of public moneys if the flow of water over these falls is to be seriously diminished.

While this is, of course, a very serious consideration, I have not permitted myself to lose sight of the importance to the industries dependent upon the maintenance of the canal for their power, which action on the part of the State authorities will have.

It is a very grave duty to be compelled to pass upon public questions wherein such great private interests are concerned. Nevertheless, it is one which I see no way to escape, and, while from certain considerations I would be pleased to arrive at a different conclusion, I am compelled to hold, from my examination of the law on the subject, that the Niagara Falls Hydraulic Power and Manufacturing Company may be restrained from increasing the capacity of the canal. It is only fair, however, that my reasons for this conclusion should be stated. They are as follows:

The Niagara River is a public navigable stream, to the bed of which, and the water flowing over it, the State and not the riparian owner has title.

It would be a waste of time to attempt to show why this proposition is correct. It is sufficient to say that it has been amply supported by judicial decisions and is now the established law.

Ill. C. R. R. Co. v. Ill. (146 U. S., 387).

Smith v. Rochester (92 N. Y., 479).

Matter of St. Reservation (16 Abb. N. C., 395).

The sole question, therefore, for determination is, "Can an owner of the soil adjoining a navigable stream divert the water for private manufacturing purposes without the consent of the State?" Let us examine it.

By the term "navigable," it must be remembered, is not meant "capable of being navigated." As used in this discussion, "navigable stream" means one which is navigable in the legal sense. Rivers may be navigable in fact but not in law, or they may be navigable in law but only in part navigable in fact. A mere local interruption of actual navigability, therefore, will not change the character of a stream in its legal aspect.

The river being navigable, in the legal sense, the title to the bed of the stream and to the water flowing over it is in the State, at least to the boundary line between the State and Canada.

People v. Appraisers (33 N. Y., 464).

Crill v. Rome (47 How. Pr., 398).

Morgan v. King (35 N. Y., 454).

People v. Tibbetts (19 N. Y., 523).

Ex parte Jennings (6 Cow., 518).

Therefore, leaving out of view for the present the grant of land under water to the Hydraulic Power and Manufacturing Company, the State could unquestionably deprive the corporation of all use of the waters of the river for power purposes by devoting the stream to other public use.

Smith v. Rochester (92 N. Y.).

Whether or not that has been done by the laws establishing the Niagara reservation I will discuss hereafter. I prefer at this point to consider the abstract question of the right of an owner of land adjoining a navigable stream to divert a considerable portion of the waters for manufacturing purposes without a grant or prescriptive right.

Nuisances may always be abated by action in the name of the aggrieved party. Public nuisances include any encroachment upon highways or navigable streams, and it is not an essential characteristic of the encroachment upon the stream that it should be an actual hindrance to navigation.

Wood on Nuisances, 2d ed., secs. 478-480, and cases cited.

The diversion of water from a public stream for any other than domestic purposes is a nuisance, and therefore may be abated at the suit of the Attorney-General.

Philadelphia v. Gelmartin (71 Penn. St., 140).

The Niagara Falls Hydraulic Power and Manufacturing Company is organized under the act of 1875, chapter 611. Its objects are declared to be the development of the hydraulic canal in Niagara Falls, and the establishment and conducting of various manufacturing interests. Under its charter it is not only supplying its own mills but is furnishing other industries with power for a consideration. So far as the latter fact is concerned, certainly no question can be raised as to the rights of a riparian owner to the use of water for his own benefit. I assume the fact that the capacity of the canal at the outset was sufficient for all the purposes of the power company, and that the increased capacity is desired for the purpose of enabling the corporation to derive a revenue from its sale of power to others. I have no hesita-

tion in declaring this to be unlawful. A nonriparian owner is not entitled to any benefits of a stream other than those enjoyed in common by the public, and a riparian owner at the most is entitled only to personal benefits derivable from use devoted to personal purposes solely. They do not include the transmission of power to property located upon premises that may be far removed from the lands of the riparian owner.

The case last cited was an action brought by the owner of a boat which had been prevented from navigating the Schnylkill, by reason of the diversion of the waters of that stream by the city of Philadelphia for domestic or other purposes. The court in its opinion says:

"In deciding upon the question of illegality in drawing off the water from the navigation, we are carried beyond its use for power, to inquire into the character of the consumption claimed as an overruling necessity. We have already seen that the city is a large vendor of water from which she is deriving revenue, for all the purposes of the arts, manufacturing, business, and pleasure. These uses are not domestic, that is, such as are for the preservation of the life and health of the population and their creatures, but are simply utilitarian or business uses, and far exceed those needed for domestic purposes. And even as to those termed domestic, a distinction must be noted between the use proper and that which is lavishly expended in pavement washing, baths, etc. It is perfectly obvious, therefore, that the city drew off water not only for driving and lifting power, but for a consumption far beyond any imperious necessity, and for purposes wholly subordinate to the right of navigation. She chose to prefer the pecuniary interests of her citizens, and doing an injury thereby she must make compensation to the injured parties. I mean not by these remarks to draw any comparison between the importance of the use of the water for the great purposes of industry, wealth, and cleanliness of a city so populous as Philadelphia, and the use of it for navigation during a few days of drought. The question for us is that of legal right, not comparative weight. Such important interests as those of the city are not likely to lead to the substitution of might for right; yet, they are not of that imperious necessity which justifies might, and changes wrong into right. Administrators of the law, we can not bend or break the law before a large interest, more than we can before one that is small. The doctrine of imperious necessity is not in this case."

It is historical that the Niagara River at Port Day has been navigated by vessels of large burden, and, indeed, to a point some distance below. The erection of cribs to divert ice and other refuse from the canal inlet is, therefore, an actual obstruction to navigation, and it is not necessary to show present use of the river at this point for navigation purposes. Once a highway, always a highway, is true of navigable streams. (See *Yolo v. Sacramento*, 38 Cal., 193; *Wood on Nuisances*, 478, 485.)

Ex parte Jenkins (6 Cowen, 518) is also of interest on this point. That was a proceeding brought in mandamus to compel commissioners appointed to appraise damages occasioned by the diversion of the stream of the Chittenango for the purposes of the Erie Canal, which diversion prevented the use of the water of the stream by riparian owners for power purposes in operating mills. The court, in awarding mandamus, says:

"The objection is contained in the affidavits of Mr. Seymour that, in point of fact, the State has not parted with the land upon which the Chittenango passes, at the places claimed, but had bounded purchases of land on the margin of the stream, so that, as he believes (and he believes the other appraisers were satisfied of the fact being so), the State was still the owner of the land covered by the waters of the stream, and had not parted with it or contracted to part with it, to any person whatever, or authorized the use of the water for hydraulic purposes at the places in question. If the construction set up by the commissioners be the true one, if the State owns the land covered by the water, it is clear that, though the relators may be entitled to the use of the water flowing by and touching upon them for all ordinary purposes, yet they can not build mills upon and raise the water of the stream. They are trespassers, and the State may claim not only the waters, but the mills themselves, so far as they encroach upon the stream."

I will not consider the effect of the grant by the land commissioners of lands under water to the corporation operating the canal.

The powers of the land commissioners at the time the grant was made were conferred by section 67, page 633, volume 1, eighth edition, Revised Statutes. It reads:

"The commissioners of the land office shall have power to grant, in perpetuity or otherwise, so much of the lands under the waters of navigable rivers or lakes as they shall deem necessary to promote the commerce of this State, or proper for the purpose of beneficial enjoyment of the same by the adjacent owner."

The court of appeals, in passing upon the character of such grant, says: "In every such grant there was an implied reservation of the public right, and so far as it is assumed to interfere with it, or to confer the right to impede or obstruct navigation, or to make an exclusive appropriation of the use of navigable waters, the grant was void."

Again: "Public grants to individuals under which rights are claimed in impairment of public interests, are construed strictly against the grantee, for it is reasonable to suppose that if they were intended to have this operation, the intention would have been expressed in plain and explicit language."

People v. N. Y. & Staten Island Ferry Co. (68 N. Y., 71).

I have been unable to find any language in the grant to the Niagara Falls Hydraulic Power and Manufacturing Company which can be construed as authorizing them to divert the waters of the Niagara River. Applying the principles in the case last cited, it is certain that that grant can afford no defense to an action brought to restrain the unlawful taking of the waters.

It now remains to determine whether or not the waters of the Niagara River have been devoted by the legislature to a public use to an extent that will prevent the diversion of the water above the falls for power purposes. The objects and purposes of the statutes creating the Niagara reservation were to preserve a great natural waterfall and its environments for the enjoyment of the people of this State. In fact, the statutes themselves declare that the commissioners shall take all proper steps to restore and afterwards to preserve the scenery as nearly in its natural state as possible.

The flow of water over the falls is an essential element in the preservation of the scenery, and if it can be shown (as I am informed it can) to be the fact that the diversion of the large quantities of water through the canal of the Niagara Falls Hydraulic Power and Manufacturing Company has a diminishing effect upon the flow of the water over the falls, the diversion is a nuisance and can be restrained.

All of which is respectfully submitted.

T. E. HANCOCK, *Attorney-General*.

HON. ANDREW H. GREEN,

President Niagara Reservation Commission, New York City.

APPENDIX B.

List of dependent industries of the Niagara Falls Hydraulic Power and Manufacturing Company.

Electric light for street and store service.
Pittsburg Reduction Company.
Niagara Falls Brewing Company.
Wm. A. Rogers (Limited.)
Niagara Gorge Railroad.
Youngstown and Lewiston Railroad.
National Electrolytic Company.
Acker Process Company.
Walker Manufacturing Company.

Cliff Paper Company.
Cataract City Milling Company.
Pettebone-Cataract Paper Company.
Oneida Community Company.
City Waterworks.
Niagara Falls Milling Company.
Carter-Crum Company.
Central Machine Company.

APPENDIX C.

The Niagara Falls Power Company—List of users.

	Maximum power.	Transmission distance.
NIAGARA FALLS, N. Y.		
	<i>Horsepower.</i>	<i>Miles.</i>
The Pittsburg Reduction Co	8,000	0.46
The Carborundum Co.	5,000	.38
Union Carbide Co.	17,000	2.00
Niagara Electro-Chemical Co.	3,000	.75
Niagara Falls Lighting Co.	1,000	.14
International Railway Co.	1,500	.....
The Niagara Falls Water Works Co. (hydraulic power)	300	.....
International Paper Co. (hydraulic power)	8,000	.....
Castner Electrolytic Alkali Co.	8,500	.85
Oldbury Electro-Chemical Co.	2,500	2.18
International Acheson Graphite Co.	2,000	.28
Acetyvone Manufacturing Co.	50	.95
Roberts Chemical Co.	500	1.90
Francis Hook and Eye and Fastener Co.	15	.47
Norton Emery Wheel Co.	1,500	.95
The Natural Food Co.	1,500	.66
Ramapo Iron Works	500	1.70
By-Products Paper Co.	500	.19
Composite Board Co.	200	.34
Niagara Research Laboratories	500	.28
Lockport Paper Co.	500	.....
Cataract Consumers Brewery	140	.....
Development and Funding Co.	750	.....
Niagara Tachometer and Instrument Co.	15	.....
Ozone Vanillin Co.	125	.....
Phosphorus Compounds Co.	50	.....
Acheson Siloxicon Articles Co.	50	.....
Niagara River Manufacturing Co.	800	.....
NIAGARA FALLS, ONTARIO.		
A. C. Douglass, contractor	400	3.00
Niagara, St. Catharines and Toronto Rwy.	500	3.80
Lighting Co.	500	3.40
Canadian Shredded Wheat Co. (Limited)	75	.....
International Acheson Graphite Co.	200	.....
Larkin, Sangster and Marshall, contractors.	2	.....
Loretto Convent	40	.....
Monastery of Mount Carmel	35	.....
TONAWANDA.		
International Railway Co.	1,500	.....
Tonawanda Board and Paper Co.	1,200	15.00
Buffalo Bolt Co.	160	14.00
Philip Houck Milling Co.	142	14.00
F. J. Alliger Co.	107	15.00
Adamite Abrasive Co.	50	14.50
Orient Manufacturing Co.	20	14.00
Felton School.	22	14.00
LOCKPORT.		
International Railway Co.	1,000	26.00
OLCOTT.		
International Railway Co.	1,000	39.00
BUFFALO.		
Buffalo General Electric Co.	6,000	27.60
Great Northern Elevator	900	29.50
Electric Grain Elevator	200	30.70
Buffalo Elevating Co.	950	29.00
Buffalo Cereal Co.	375	30.30
American Brake Shoe and Foundry Co.	40	33.20
Charles G. Curtiss Co.	125	25.50
McKinnon Dash Co.	100	24.40
The Gypsum Products Co. ....	.....	.....
The General Railway Signal Co. ....	.....	.....
Schoellkopf & Co.	50	30.00
The National Battery Co.	90	26.30
International Railway Co. ....	.....	.....
Great Eastern Elevator	900	30.00
Buffalo Dry Dock Co.	133	30.00
Edward Elsworth & Co. (H. O. Mills)	150	30.00
Snow Steam Pump Works	150	33.30
The Jacob Dold Packing Co.	100	32.50
The John Kam Malting Co.	225	21.30

The Niagara Falls Power Company—List of users—Continued.

	Maximum power.	Transmission distance.
BUFFALO—continued.	Horsepower.	Miles.
Pratt & Letchworth Co	100	24.40
The Wood & Brooks Co	100	30.00
Sidney Shepard & Co	165	30.00
Iron Elevator and Transfer Co	15	24.70
W. W. Oliver Manufacturing Co	200	24.30
New York Car Wheel Co	995	31.70
The United States Rubber Reclaiming Works	200	24.00
The American Radiator Co. (Bond plant)		
Barcalo Manufacturing Co	125	32.00
American Agricultural Chemical Co	50	24.80
Acmé Steel and Malleable Iron Works	30	29.10
Cumpton-Prentiss Coffee Co	30	29.00
J. I. Prentiss & Co		
Schoellkopf, Hartford & Hanna Co		
The U. S. Hame Co		
Knowlton Warehouse Co		
Iroquois Brewing Co		
Faxon, Williams & Faxon (bakery)		
The Sherwood Manufacturing Co		
Duffy Silk Co		
American School Furniture Co.: Foundry		
Works		
Buffalo City Waterworks		
Duluth Superior Milling Co		
The Frontier Ice and Stone Co		
The New York Central and Hudson River R. R. (shops)		
The Erie R. R. Co. (shops)		
The General Chemical Co		
The Oswegatchie Manufacturing Co		
G. F. Zeller & Sons	240	35.10
Buffalo Foundry Co	255	29.30
H. O. Mills Annex	30	24.80
The Jewett Refrigerator Co		
Buffalo Pitts Co.: Works	187	35.50
Foundry		
Buffalo Brake Beam Co	30	25.00
Buffalo Dental Manufacturing Co	20	35.50
Keystone Manufacturing Co	25	24.80
R. L. Ginsburg & Sons	33	34.00
Buffalo Weaving and Belting Co	65	25.50
H. W. Dopp Co	10	25.00
Frontier Iron Works	15	25.00
The Crosby Co	50	33.00
Spencer Kellogg	500	29.20
The Lake Erie Engineering Works		
John Schmitz		
The Battle Creek Breakfast Food Co		
The Collins Baking Co	50	33.20
George Urban Milling Co	450	34.50
C. Kurtzmann & Co		
The Buffalo Gasoline Motor Co	20	25.00
The Niagara Mill and Elevator Co	100	26.00
Pratt & Lambert	10	24.50
The Delaware, Lackawanna and Western R. R. shops	150	34.50
The Niagara Cordage Co		
The U. S. Headlight Co	40	26.00
H. Messersmith (Laverack Building)	100	28.20
The Buffalo Structural Steel Co	30	26.00
The Wegner Machine Co	40	29.00
J. N. Adam & Co	100	28.20
The estate of Walter Cary (Genesee Hotel)	100	28.10
The McLean Box Factory		
The George N. Pierce Co		
The American Malting Co		
The Buffalo Fertilizer Co		
The Buffalo Rubber Manufacturing Co		
The U. S. Cast Iron Pipe and Foundry Co		
The L. V. R. R. Co. shops		
The Buffalo Box Factory		
American Radiator Co. (Pierce plant)		
Rogers Plating and Foundry Co		
Fleming Warehouse Co		
Hewitt Rubber Co		
C. & B. Transit Co		
The D. H. Stoll Co		
The Ontario Elevator		
L. M. Ericsson Telephone Manufacturing Co		
The Niagara Malting Co		
The Buffalo Union Furnace Co		

APPENDIX D.

Statement concerning companies incorporated to take water from Lake Erie and Niagara River, but which have not as yet constructed works under these charters.

AMERICAN SIDE.

Lockport Water Supply Company.—Incorporated 1886. New York State. Empowered to supply water for manufacturing and other purposes to cities within the county of Niagara; to take water from the Niagara River between the mouth of Tonawanda Creek and the east line of lot No. 52 of the Mile Reserve, and to discharge water into Lake Ontario or into Eighteen Mile Creek. Work to be commenced by 1891. No work done.

Lewiston Water Supply Company.—Incorporated 1888. New York State. Empowered to supply water to Lewiston and other towns in the township of Niagara and Lewiston for manufacturing or other purposes; to take water from the Niagara River between Cayuga Creek and the east line of lot 46, Mile Reserve; discharge water into Niagara River near the town of Lewiston. Work to be commenced by 1893. No work done.

Buffalo and Niagara Power and Drainage Company.—Incorporated 1889. New York State. Empowered to build and operate public raceway in connection with the Niagara River for water power and other purposes; to take water from and discharge water into the Niagara River at such points as may be convenient. Work to be completed by 1894. No work done.

Niagara County Irrigation and Water Supply Company.—Incorporated 1891. New York State. Empowered to build and operate public waterway from Niagara River between Cayuga Creek and lot 71 of Mile Reserve; to supply water to Lewiston and other villages in townships of Niagara, Lewiston, and Porter; to lease and sell water for manufacturing and other purposes; to take water from Niagara River between points specified and discharge into Niagara River near Lewiston or Porter. Work to be commenced by 1896. This company claims to have done some work and to be proceeding with development.

Niagara Power and Development Company, originally The Model Town Company.—Incorporated 1893. New York State. Further legislation 1894. Authorized to build a town and equip plants for all public utilities therein. Empowered to take water from Lake Erie or Niagara River for all purposes except for motive power for factories. May purchase or lease franchise of the Niagara County Irrigation and Water Supply Company.

Niagara, Lockport and Ontario Power Company.—Incorporated 1894. Empowered to supply water and electricity to Lockport and other cities in Niagara, Erie, and Orleans counties; to take water from the Niagara River between mouth of Tonawanda Creek and east line of lot 52 of Mile Reserve and discharge water into Lake Ontario or Eighteen Mile Creek. Work to be commenced by 1904. In 1904 failed to obtain legislation to perpetuate right to take water from Niagara River. Is now building works for distribution of electric energy.

APPENDIX E.

Statement concerning companies incorporated to take water from Lake Erie and Niagara River, but which have not as yet constructed works under these charters.

CANADIAN SIDE.

Ontario Power Company, originally Canadian Power Company.—Incorporated 1887. Dominion Parliament. Other legislation 1891, 1893, and 1899. Empowered to build a canal and hydraulic tunnel from Welland River, near junction of Niagara, to Niagara River south of the whirlpool, and to supply water, electricity, or other power. As this company is empowered to make two separate developments, one of which is well under way, and as the act of 1899 empowers it to extend and enlarge its works as demanded by business, there is apparently no limit as to the time when the second development may be commenced.

Hamilton Cataract Power, Light and Traction Company, originally Cataract Power Company of Hamilton.—Incorporated 1889. Province of Ontario. Further legislation 1904. Empowered to build and operate a canal and raceway from near Allanburg to

the Welland River near Port Robinson as an extension of their canal from near Decews Falls. This company is said to lease from the Dominion Government water from the Lake Erie level of the Welland Canal.

Jordan Light, Heat and Power Company, originally Hamilton and Lake Erie Power Company.—Incorporated 1895. Further legislation 1898, 1903. Dominion Parliament. Empowered to build and operate water course from Welland River between 12 and 30 miles from Niagara River to a point on Jordan River, and may dredge Welland and Jordan rivers; to use the waters of Lake Erie and Niagara River in such quantity as may be necessary for their purposes; to supply water and electricity or other power. To be completed by 1911.

Erie and Ontario Power Company.—Incorporated 1903. Dominion Parliament. Authorized to build and operate water course from Grand River or Lake Erie to Jordan River and Lake Ontario; to take waters of Lake Erie and to dredge Jordan River; to supply electric or other power and convey the same. To be completed 1908.

Niagara Welland Power Company, originally Welland Power and Supply Company.—Incorporated 1894. Further legislation 1891, 1899, 1903, and 1905. Dominion Parliament. Empowered to build and operate canal from Welland River near Niagara River to near Thorold and to carry off surplus water to Lake Ontario; to supply power and to use canal for navigation. To be completed by 1910.

North American Canal Company.—Incorporated 1893. Dominion Parliament. Authorized to build and operate canal from Lake Erie near Port Colborne to Lake Ontario near Port Dalhousie, or to Niagara River near Queenston; canal to be 20 feet deep and sufficient width for two of the largest vessels to pass at full speed. Authorized to maintain a current of 3 miles per hour. To sell or lease water and hydraulic or other power. May dredge in the Welland and Niagara rivers. To be completed by 1903.

DEPARTMENT OF STATE,
Washington, March 19, 1906.

The PRESIDENT:

In reply to your letter of the 15th instant, transmitting the resolution of the Colonial Dames of America relative to the preservation of Niagara Falls, and stating your desire to be informed regarding the present status of the negotiations with Great Britain on the subject, I have the honor to inclose herewith copies of correspondence had to the present time, through the War Department, with the American section of the International Waterways Commission.

Respectfully submitted.

ELIHU ROOT.

DEPARTMENT OF STATE,
Washington, February 13, 1906.

SIR: Several months ago the State Department and the British ambassador took up the subject of a possible treaty between the United States and Great Britain relating to the use of the waters of the Niagara River and the preservation of the falls.

On the 13th of November the ambassador transmitted to the Department a report of the Canadian privy council, approved November 2, 1905, which stated that a report from the Canadian section of the Water Ways Commission stated that the Commission was studying the subject and expected to be able to "make a joint report to the Government of the United States and to the government of Canada before long, recommending the adoption of rules and regulations which would prevent in the future the destruction of Niagara Falls by the use of its waters by manufacturers."

In the report by the American section, made to the Secretary of War on December 1, 1905, occurs the following statement:

"The Commission has made good progress in the collection of data bearing upon some of these questions, particularly those relating to the use of water at Niagara Falls."

On the 28th of October, 1905, the Commission appears to have adopted the following resolutions:

Resolved, That this Commission recommends to the Governments of the United States and Canada that such steps as they may regard as necessary be taken to prevent any corporate rights or franchises being granted or renewed by either Federal, State, or provincial authority for the use of the waters of the Niagara River for power or other purposes until this Commission is able to collect the information necessary to enable it to report fully upon the "conditions and uses" of those waters to the respective Governments of the United States and Canada.

The negotiation relating to a treaty on this subject has been suspended awaiting the further report of the Commission, in accordance with the statements to which I have referred. There are many indications of active public interest in this subject, and a joint resolution having in view the preservation of the falls, pending in the House of Representatives, has been favorably reported by the Committee on Rivers and Harbors. The indications are that if an agreement can be reached between the two countries as to the action necessary to accom-

plish the purpose, any legislation to give the agreement effect on the part of the American authorities would receive favorable consideration at the present session of Congress and at the present session of the New York legislature.

It seems desirable, therefore, to press forward the negotiation for such an agreement without any avoidable delay. May I ask you to ascertain whether the joint commission is not now prepared to make such a report upon the subject as may furnish a basis upon which the State Department and the ambassador may take up and proceed with the negotiation?

I have the honor to be, sir, your obedient servant,

ELIHU ROOT.

The SECRETARY OF WAR.

WAR DEPARTMENT,
Washington, February 19, 1906.

SIR: I have the honor to acknowledge the receipt of your letter of 13th instant, in which you call attention to the fact that negotiations for a possible treaty between Great Britain and the United States in regard to the use of waters of Niagara River and preservation of the falls are now suspended, awaiting a further report from the International Waterways Commission is now prepared to make such report as may furnish a basis upon which the Department of State and the British ambassador may be able to proceed with the matter.

Replying thereto I beg to inform you that the chairman of the American section of the International Waterways Commission, Col. O. H. Ernst, to whom your letter was referred, reports under date of 17th instant as follows:

A copy of this letter has been sent to the chairman of the Canadian section and also to the other members of the American section of the International Waterways Commission in order that they may be prepared to discuss and act upon the question referred to at their next meeting.

It is expected that a meeting can be held during the week beginning February 26, when it is hoped and believed that the map of the locality which the Commission has had under construction will be entirely completed.

The outcome of the meeting referred to by Colonel Ernst will be promptly communicated to the Department of State.

Very respectfully,

ROBERT SHAW OLIVER,
Acting Secretary of War.

The SECRETARY OF STATE.

DEPARTMENT OF STATE.
Washington, March 13, 1906.

MY DEAR MR. SECRETARY: I notice in the newspapers that the International Waterways Commission has taken some action about the Niagara Falls matter.

Have you received any report? If not, can you get one from them?

Very truly, yours,

ELIHU ROOT.

Hon. WILLIAM H. TAFT,
Secretary of War.

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